

Appl. No. : 10/708,249
Amdt. Dated: September 4, 2007
Reply to Office Action of
May 3, 2007

REMARKS

Claim 1-27 were originally filed in the present application and remain pending and at issue. Of these claims, Claims 1, 13 and 22 were amended to clarify limitations therein. No new matter has been added.

All pending claims have been rejected under 35 U.S.C. 101, as the Examiner contends the disclosed invention is inoperative and therefore lacks utility. Claims 1-27 also currently stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Further, Claims 1, 2, 4-7, 13, and 17-19 have been rejected under 35 U.S.C. 102(e) as anticipated by Wilber (listed at "U" of Examiner's *Notice of References Cited* as "BJU International (2002) 90, 507-511" Form PTO-892). Claims 13, 18 and 19 stand rejected under 102(e) as anticipated by U.S. Pre-Grant Publication No. 2004/0059265 to Candy (hereafter "Candy"). Claims 3 and 15 have been rejected under 35 U.S.C. 103(a) as unpatentable over Applicant's "own admitted prior art." Claims 8 and 9 are also rejected under 103(a) as unpatentable over Wilbert in view of U.S. Patent No. 5,658,239 to Delmenico (hereafter "Delmenico"). Claims 10-12 stand rejected under 103(a) as unpatentable over Wilbert in view of U.S. Patent No. 5,119,801 to Eizenhoefer (hereafter "Eizenhoefer"). Claims 14 and 23-27 stand rejected under 103(a) as unpatentable over Wilbert in view of Eizenhoefer and further in view of Delmenico. Finally, Claims 20-22 stand rejected under 103(a) as unpatentable over Candy in view of Wilbert. Applicant traverses each of these rejections and respectfully requests reconsideration in view of the amendments above and the arguments presented below.

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Section 101 Rejection

The Examiner has cited to four referenced diagrams to illustrate that a planar or flat wave does not result from a reflected energy source as set forth in the pending claims. This is just untrue.

Figure 1 of the present application is a prior art device illustrating an elliptical reflective surface, resulting in non-planar waves. Similarly, Figure 3 of the present Office Action illustrates an elliptical surface (1980), a spherical surface (1985), a lens focusing a flat wave (1986), and a paraboloid focusing a cylindrically shaped wave. Conversely, Figure 2 of the present application utilizes a parabolic surface with a focal point at F to reflect a spherical shock wave which emanates substantially from the focal point. The manner in which this device produces the planar waves is discussed sufficiently in paragraphs 23-26 of the present application.

Applicant contends that the invention is operative and those skilled in the art would have little difficulty duplicating the claimed invention based solely on the disclosure of the present application. Accordingly, withdrawal of the §101 rejection is respectfully requested.

Section 112 Rejection

As stated above, the claimed invention is operative and fully disclosed in the present application. Applicant refers the Examiner to paragraphs 23 through 26 of the present application. It is a fact that a paraboloid has a single focus point. Diverging waves from the focus, such as the spherical waves disclosed, will hit the paraboloid surface and be reflected in a way such that they are planar or flat. This is similar to the inverse of a satellite dish where planar waves (from the satellite) are reflected from the dish onto the receiver at the focus point. Here, the spark gap is placed at the focus point and the wave, initially spherical, is reflected (i.e.

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toward the satellite) as flat or planar. Including Figure 2, the claimed invention is disclosed in such a detailed manner as to enable any person skilled in the art to which it pertains to make and use the same.

In light of these arguments, Applicant respectfully requests withdrawal of the §112 rejections.

Section 102(e) Rejections

The Examiner has oddly rejected Claims 1, 2, 4-7, 13 and 17-19 as being anticipated by Wilbert. However, the Examiner used the same reference to reject the claims under Section 101, stating that the reference showed the production of a planar wave was not possible. Essentially, the Examiner is admitting that Wilber does not disclose the production of planar waves. This much is true.

Instead, Wilbert discloses focused waves using various geometric surfaces. The disclosure of focused waves cannot be said to anticipate the present claims directed to a parabolic reflective surface for producing planar waves. Accordingly, rejection under §102(e) is improper.

Reconsideration of the pending claims in light of this argument is respectfully requested. Applicant contends that all claims are in condition for allowance.

Section 103(a) Rejections

As discussed above, Wilber does not disclose the production of planar waves using a parabolic surface. Neither Delmenico nor Eizenhoefer anticipate a planar wave either. Accordingly, even if one of skill in the art were to consider each of these references, alone or in combination, they would not be taught to produce a planar wave using a parabolic reflective

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surface. If the Examiner thought such was disclosed in the cited references, he would not have taken the time to reject the claims under Sections 101 and 112.

Accordingly, Applicant contends the claims distinguish over the cited art.

Reconsideration of the pending claims is respectfully requested.

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CONCLUSION

All pending claims have been rejected under 35 U.S.C. 101, 35 U.S.C. 112, first paragraph, 35 U.S.C. 102(e), and/or 35 U.S.C. 103(a). Applicant has traversed each of these rejections and has explained how the claimed invention is operative, enabled in the present disclosure, and novel and non-obvious over the cited art. All claims are considered to be in condition for allowance. Reconsideration of all claims in view of the amendments above and the arguments presented is respectfully requested.

Should any formalities remain which can be addressed by Examiner's amendment, Applicant requests the undersigned attorney be contacted in an attempt to expedite the prosecution of the present application.

Respectfully submitted,



By

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